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ABSTRACT

The goal of this investigation was to explore the role social competence plays in peer group relations. Social competence, as based on exchange theory, was "operationalized" as including high levels of interpersonal positiveness, and accuracy in perceiving one's social status. Also explored was the extent to which satisfaction is a consequence of competence and social status. A total of 50 fifth-graders were interviewed, providing data in four domains: (1) sociometric status; (2) perceived sociometric status; (3) loneliness and social dissatisfaction; and (4) interpersonal positiveness in different social situations. Results indicated that unpopular children were more dissatisfied and lonely, and less interpersonally positive, than average or popular classmates. Further, even though all the children were fairly accurate perceivers of their social standing, unpopular children overestimated it, while average and popular children underestimated their peer group status. When path analysis was used to test an exchange theory model of social competence and peer relationships, findings indicated that social competence significantly predicted social status which, in turn, significantly predicted social satisfaction. (Author/RH)

A Path Analysis of the Role of Social Competence in Fifth-Grade Children's Peer Relationships

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This paper is based on a masters thesis submitted by the first author to the second. Portions of this paper were presented at the 1987 Biennial Meeting of the Society for Research in Child Development, Baltimore, Maryland, April.

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ABSTRACT

The goal of this investigation was to explore the role social competence plays in peer group relations. Based on exchange theory, social competence was operationalized as including high levels of interpersonal positiveness, and accuracy in perceiving one's social status. We also explored the extent to which satisfaction is a consequence of competence and social status. Fifty fifth-grade children were interviewed, providing data in four domains: a) sociometric status; b) perceived sociometric status; c) loneliness and social dissatisfaction; d) and interpersonal positiveness in different social situations.

Results indicated that unpopular children are more dissatisfied and lonely than their average or popular classmates. Unpopular children are also less interpersonally positive than their average and popular peers. Further, even though all the children are fairly accurate perceivers of their social standing, unpopular children overestimate their social standing, while both average and popular children underestimate their peer group status. Finally, a path analysis tested an exchange-theory model of social competence and peer relationships. The results indicated that social competence (interpersonal positiveness and status perception) significantly predicted social status which, in turn, significantly predicted social satisfaction.

INTRODUCTION

A significant childhood challenge lies in the domain of social development: the development and maintenance of healthy and positive interpersonal relationships, both with family members and with peers. Although the family has the first, and under certain conditions, an enduring effect on social development, with increasing age peers become more and more important (Burgess & Richardson, 1984; Hartup, 1983). Regardless of whether the impact of peer relationships on a child's developing social competence is direct or indirect (via influences of the family or experiences in the home), the fact is that poor peer relations are associated with problems later in childhood, adolescence, and early adulthood. Unlike many other childhood disorders, peer rejection is stable during middle childhood, is associated with poor social-emotional development, and is predictive of a range of poor mental health outcomes (e.g, Kohlberg, LaCross, & Ricks, 1972; Robins, 1978; Wolfgang, Figlio, & Sellin, 1972). Conversely, positive peer relations may act as sources of reinforcement and emotional support, facilitating children's development of cooperative, reciprocal, negotiation, and communication skills (Rubin & Daniels-Bierness, 1983). Additionally, peer interactions provide opportunities for fantasy play and role-taking, enhancing social-cognitive development and the understanding of social roles and social norms (Ladd & Asher, in press).

Thus, given the importance of peer socialization experiences, it becomes critical to examine the processes inherent in peer relationships. It was suggested more than thirty years ago that it is useful to conceive of interpersonal relations as being governed by "interpersonal competence," or "relative degrees of skill in controlling the outcome of episodes of interaction" (Foote & Cottrell, 1955, p. 36). Further conceptualized, based

on exchange theory, it is assumed that sustained interaction, and the social relationships that follow therefrom, represent, in the most fundamental sense, the exchange of valued outcomes (Homans, 1974). The ability to initiate and sustain interaction depends, among other things, on one's ability and willingness to reinforce others positively. Thus, a general indicator of one's interpersonal competence may be how reinforcing one is.

For the purposes of this investigation, then, social competence shall be defined as the appropriate application of interpersonal skills to meet the demands of a situation and provide positive outcomes for the actors involved in that situation (Burgess, 1987). It is assumed that in order to display social competence in any give situation, three general conditions have to be met (Richardson, 1984). First, one must be able to observe the demands of specific social situations accurately in order to select the appropriate response. Second, the capacity for displaying interpersonal positiveness must be manifested such as by praising, complimenting, or showing affection toward others. Third, these concrete manifestations of specific social skills must be rewarding for all interactants. In addition, the skill of accurate perception is extended to included not only situational demands, but, more generally, an accurate perception of one's standing in the social (peer) group.

This study is an attempt to begin to look at some of the processes of social competence involved in the peer relationships of pre-adolescent children, viewed from an exchange theory perspective. Specifically, the following hypotheses were investigated:

(1) Children rated more popular by their peers will be more satisfied with their peer group relations than those rated as more unpopular by their peers.

(2) Popular children will report higher levels of interpersonal positiveness than unpopular children.

(3) Accurate self-perception and interpersonal positiveness will be positively correlated.

(4) Popular children will be more accurate perceivers of sociometric status than unpopular children.

(5) Finally, we were interested in addressing the global question inherent in this investigation: "To what extent is peer group status and satisfaction with peer group relationships predicted by interpersonal positiveness and the ability to identify one's social standing correctly?" This question was addressed by a path analysis of the model depicted in Figure 1.

[insert Figure 1 about here]

Statistically, the model in Figure 1 is represented by the following multiple regression equations:

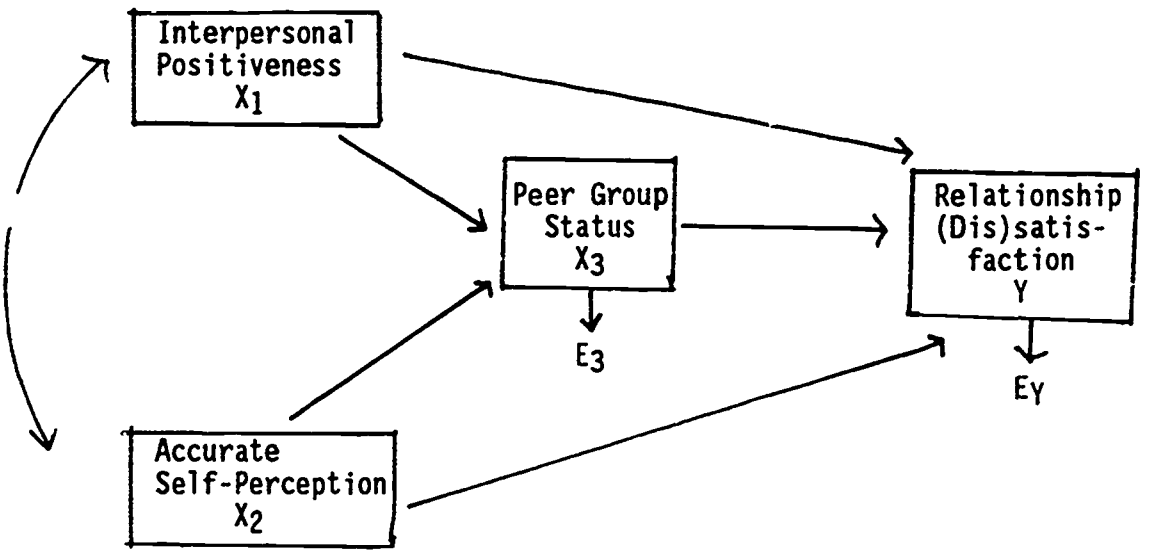
(1) $X_3=B_0+B_1+B_2+E_3$

(2) $Y=B_0+B_1+B_2+B_3+E_Y$

Substantively, the model postulates that interpersonal positiveness and accurate self-perception predict peer status (equation 1). Peer group status, in turn, is predictive of social (dis)satisfaction. That is, we argue that interpersonal, or peer group, relationships are a function of social competence, and satisfaction with those relationships is a consequence of peer group popularity. Thus, as expected by exchange theory, the more one is liked, the more one should be satisfied by one's relationships. Further, the relationship between social competence (interpersonal positiveness & perception) and social (dis)satisfaction should be an indirect one, i.e., one that is mediated through peer group status. In other words, social

FIGURE 1

A Direct and Indirect Effects Model of Social Competence on Peer Group Status and Relationship (Dis)satisfaction



competence, in and of itself, should not have a direct effect on social (dis)satisfaction, but only to the extent that it affects one's interpersonal relationships (equation 2).

METHODS

Subjects

Fifty fifth-grade children attending a public elementary school in rural, central Pennsylvania served as subjects of this study. The sample was comprised of 24 boys and 26 girls, solicited from two classrooms. A 2X2X2 ANOVA revealed no significant differences between groups in terms of gender, classroom membership, and family structure, either at the main effect or interaction level, on any of the dependent variables. Similarly, a t-test revealed no significant differences between the two interviewers who conducted the interviews, on any of the dependent variables. Thus, the sample was left intact for the analyses.

Procedure

Children completed a 45-minute interview consisting of four parts:

Sociometric Rating System

Each child filled out a peer rating scale, which is a five-point Likert scale that asks children how much they like to be with each same-sex classmate. Each child's score is the mean of all ratings received from same-sex peers.

Reliability. Relatively high stability coefficients have been found consistently for peer ratings of elementary-age students. Studies have shown test-retest correlations in the seventies and eighties for periods ranging from four (Oden & Asher, 1977) and nine weeks (Ladd, 1981) to four months (Hymel & Asher, 1977).

Validity. Typically, nomination procedures have been used to validate peer ratings. Peer ratings are moderately correlated with sociometric status based on both positive and negative nominations for preschool (Asher, Singleton, Tinsley, & Hymel, 1979) and elementary-age children (Green, Forehand, Beck, & Vosk, 1980; Gresham, 1981; Van Hasselt, Hersen, & Bellack, 1981).

Reversed Sociometric Ratings

Each child was asked, using a five-point Likert scale format, how much they thought each same-sex classmate liked to be with him/her. Each child's score is the mean of all the ratings given. To provide an index of how accurately the child perceived his/her social standing a difference score (hereafter referred to as the perception score) was computed between the score on this measure and the score received on the sociometric ratings measure. Completely accurate perception, then, would result in a perception score of zero. Inaccurate perception, on the other hand, would be any deviation from zero.

Survey of Social Interaction Style (SSIS)

The SSIS (Richardson & Burgess, 1985) is a self-report measure intended to tap an individual's level of positiveness when interacting with others across multiple contexts. The SSIS was originally designed for use with adults. For this study, a child's version was developed, entailing changes in wording and referent situation, to make the instrument more salient to elementary school-age children. Each child rated how often s/he behaves in interpersonally positive and negative ways when with specific others. The actual behaviors evaluated are listed in Table 1. Thirteen are considered, a priori, positive and 7 (marked by "R") negative. For each item, the child indicated how frequently s/he exhibits that behavior, on a five-point scale

ranging from never to always. For this study six persons were of interest: friend, sibling, teacher, mother, father, and stranger (substitute teacher). To minimize response set bias, the order of the items on each SSIS version was varied. In addition, the order of administration of versions was varied across subjects.

Reliability. In the present study, for each of the six versions of the SSIS, Cronbach's Alpha coefficient of internal consistency reliability was computed. Table 1 presents the item-total correlations and Alphas for each version. Inspection of the data reveals that four of the twenty items have a low (less than .20) item-total correlation on at least one of the six SSIS versions. An examination of the Alphas when these weak items are deleted reveals that none of the reliability coefficients would increase by more than .02 with the removal of any one item. Therefore, in order to maintain parallel measures across persons and because all Alphas are within an acceptable range, i.e., above 80, it was decided to keep all of the original twenty items in each SSIS version.

[insert Table 1 about here]

General SSIS Score (Interpersonal Positiveness). A relative positiveness score was computed for each SSIS version, by creating a ratio of positive behaviors to total behaviors. This relative positiveness score represents the proportion of the respondent's behavior toward others that is positive, ranging from zero to one. We were next interested in determining whether children's self-reported levels of interpersonal positiveness were similar across these various social contexts, i.e., whether an underlying "interpersonal positiveness" factor manifests itself in these different situations. Thus, the six relative positiveness scores for each subject were factor analyzed, wherein the number of factors was constrained to equal one

TABLE 1

Item-Total Correlations and Internal Consistency Reliability Coefficients for Six Versions of the Survey of Social Interaction Style (SSIS)

	Version[a]					
Item	FR	ST	T	M	F	S
Advice	.31	.36	.52	.60	.59	.56
Listen	.25	.45	.34	.44	.61	.65
Criticize(R)	.00	.13	.07	.20	.13	.36
Compliment/ Does Well	.52	.68	.63	.47	.67	.61
Argue(R)	.23	.21	.24	.24	.38	.64
Laugh/joke	.47	.46	.59	.31	.65	.40
Thank	.52	.74	.59	.38	.59	.52
Seek Opinion	.60	.33	.53	.31	.65	.40
Lend Ear	.59	.55	.57	.69	.70	.71
Refuse(R)	.22	.26	.10	.25	.47	.46
Tell Like Them	.58	.73	.62	.33	.70	.71
Insult(R)	.55	.33	.42	.45	.58	.69
Compliment on Appearance	.65	.58	.59	.68	.54	.79
Say Hello	.51	.75	.55	.41	.55	.64
Tease(R)	.35	.19	.30	.28	.38	.42
Ignore(R)	.14	.25	.37	.49	.53	.52
Apologize	.35	.73	.49	.59	.79	.70
Smile	.57	.64	.58	.42	.59	.66
Cronbach's Alpha	.83	.86	.86	.83	.89	.91
n	49	49	50	48	44	44

TABLE 1 (Con't.)

a = FR=Friend version; ST=stranger version; T=Teacher version; M=Mother version; F=Father Version; S=Sibling version.

(R) indicates reverse coding.

(SAS; Proc Factor procedure). Indeed, as depicted in Table 2, all six versions loaded positively and strongly on one factor. Given these results, we created a general "interpersonal positiveness" score by taking the mean of the six relative positiveness scores for each individual.

[insert Table 2 about here]

Validity. Concurrent validity was established by correlating interpersonal positiveness scores with scores received on the Loneliness in Children Scale (see below). As expected, a significant negative correlation emerged ($r=-.38$, $p<.02$), indicating that the more positive behavior an individual directs toward another, the less interpersonal loneliness s/he experiences

Loneliness in Children Scale (LICS)

The LICS (Asher, Hymel, & Renshaw, 1984) is a twenty-four item questionnaire. Sixteen primary items focus on children's feelings of loneliness, feelings of social adequacy versus inadequacy, and subjective estimations of peer status. Eight "filler" items are included to help children feel more open and relaxed when answering. Each child responded on a five-point scale as to how much each statement is a true description of themselves. Each child's score is the sum of their responses on the sixteen primary items.

Reliability. Asher et al. (1984) subjected the children's responses to all twenty-four items to a factor analysis (quartimax rotation). The results indicated a primary factor that included all sixteen of the loneliness and social dissatisfaction items. None of the hobby or interest items loaded significantly on this factor. A factor analysis was performed on the present data (SAS; proc factor procedure; promax rotation). The results, presented in Table 3, are similar to those of Asher et al. (1984). The sixteen-item

Table 2

Factor Analysis of SSIS Relative Positiveness Scores

SSIS Version	Factor 1
SSIS-Mother	.74
SSIS-Stranger	.74
SSIS-Sibling	.67
SSIS-Father	.83
SSIS-Teacher	.80
SSIS-Friend	.73

scale was found to be internally consistent using the present data; Cronbach's Alpha=.84 (see Table 4 for item-total correlations).

[insert Tables 3 and 4 about here]

Validity. Like Asher et al. (1984), we found that higher loneliness scores were correlated with lower sociometric scores (r=-.54, p<.0001).

RESULTS

The results will be discussed in terms of the five hypotheses guiding this research.

(1) Children rated more popular by their peers will be more satisfied with their peer group relations than those rated as more unpopular by their peers.

The sample was divided into 3 groups (tertile split): popular, average, and unpopular children. A one-way ANOVA revealed significant differences among the peer status groups (F=8.75, df=2,47, p<.0006). Bonferonni post hoc analyses of the means for each group revealed that unpopular children (mean=36.70) were significantly more lonely than average children (mean=31.39) and popular children (mean=25.25). Average and popular children were not significantly different from each other.

(2) Popular children will report higher levels of interpersonal positiveness than unpopular children.

Using the tertile split of status groups described above (popular, average, unpopular), three t-tests, using one-tailed tests of signficance were performed. T-tests were used because it is not possible to specify one-tailed tests of significance for ANOVA. Unpopular children (mean=.6213) have significantly lower self-reported levels of interpersonal positiveness than both average children (mean=.6457; t=-1.96, df=23, p<.05) and popular

Table 3
Factor Analysis of LICS

Item	Factor 1	Factor 2
Easy to make friends	.49	
Nobody to talk to	.39	
Good at working with others	.41	
Hard to make friends		.39
Feel alone		.59
Have lots of friends	.63	
Can find a friend when need one	.49	
Other kids like me	.79	
No one to play with		
Get along with others	.56	
Feel left out	.40	
Nobody around when I need help		
Don't get along with others	.43	
I'm lonely	.52	
I'm well-liked	.77	
Have no friends	.42	
Like to read		.70
Watch TV a lot		-.37
Like school		.55
Like to play sports	.68	
Like science		.49
Like music		
Like to paint & draw		
Like playing board games		

Note. Only factor loadings above .35 are listed.

TABLE 4

Item-Total Correlation and Internal Consistency Reliability Coefficient for the Loneliness in Children Scale (LICS)

Item	r
Easy to make friends	.27
Nobody to talk to	.59
Work with others	.37
Hard to make friends	.48
Have lots of friends	.44
Feel alone	.49
Can find a friend when needed	.33
Other kids like me	.73
No one to play with	.22
Get along with others	.41
Feel left out	.54
Nobody when I need help	.35
Don't get along with others	.47
Lonely	.64
Well-liked	.60
Have no friends	.45
Cronbach's Alpha	.84
n	50
Mean	31.20
SD	9.02
Range	16.00-51.00

children (mean=.6445; t=-1.58, df=24, p<.05). There were no significant differences between average and popular children.

(3) Accurate self-perception and interpersonal positiveness will be positively correlated.

Correlational analysis revealed a statistically non-significant relationship (r=-.05) between accurate self-perception and interpersonal positiveness.

(4) Popular children will be more accurate perceivers of sociometric status than unpopular children.

Using the tertile split of status groups described above (popular, average, unpopular), a one-way ANOVA (group by self-perception) revealed significant differences among groups (F=6.15, df=2,47, p<.004). Bonferonni post hoc analyses of the group means indicated that unpopular children (mean=.1176) have significantly higher perception scores than popular children (mean=-.4988), and average children (mean=-.1412) have significantly higher scores than popular children. There were no differences between unpopular and average children. This unexpected finding suggests a couple of possibilities. It may be that popular children have learned the socially-skilled art of appearing "humble". It may also be, conversely, that unpopular children are reporting they are more popular than they are as a defense mechanism, so as to feel better and not "lose face". And, it is possible that the interpersonal perceptual processes of these children are biased in some way.

(5) Finally, we were interested in addressing the global question inherent in this investigation: "To what extent is peer group status and satisfaction with peer group relationships predicted by interpersonal positiveness and the ability to identify one's social standing correctly?"

The model in Figure 1 was tested using a path analysis. The results, summarized in Table 5, support such a model. As can be seen, interpersonal positiveness and self-perception are significant predictors of peer group status which, in turn, significantly predicts social (dis)satisfaction. Additionally, interpersonal positiveness and self-perception had non-significant direct effects on social (dis)satisfaction, suggesting that social competence affects social (dis)satisfaction only insofar as it is mediated through peer status. The final path model is depicted in Figure 2.

[insert Table 5 and Figure 2 about here]

CONCLUSIONS

Several conclusions are evident from this investigation. First, as expected from an exchange theory perspective, unpopular children appear to be more lonely and dissatisfied with their peer relationships than their average or popular classmates. This finding is in accord with results presented by Asher et al. (1984). Second, again as expected, unpopular children are less interpersonally positive than their average and popular peers. A more rigorous test of this model, via path analysis, indicated that social competence is a determinant of peer status, which then determines social (dis)satisfaction. Taken together, the results from this investigation support an exchange-theory model of peer group relationships. The results are also consistent with the proposition that unpopular children lack the skills necessary for forming and sustaining positive peer relationships (e.g., Coie & Kupersmidt, 1983; Dodge, 1983; Putallaz & Gottman, 1983; see Hartup, 1983 for review).

Although a seemingly minor point, one of our results deserves further discussion. Surprisingly, at least at first glance, we found that unpopular children tend to over-report their social status. Both their average and

TABLE 5

Regression of Peer Status on Social Competence Components

Components of Social Competence	b[a]	Beta[b]	S_b[c]	t	p<
Intercept	-.85	.00	1.20	-.71	.001
Self-Perception	.62	.62	.13	3.31	.001
Interpersonal Positiveness	6.19	.43	1.87	4.81	.002

R^2=.4479 F=14.20, df=3,35, p<.0001

Regression of Social (Dis) Satisfaction on Interpersonal Positiveness, Self-Perception, and Peer Status

Components of Social Competence	b[a]	Beta[b]	S_b[c]	t	p<
Intercept	89.32	.00	21,49	4.16	.001
Self-Perception	4.03	.24	2.98	1.35	.18
Interpersonal Positiveness	-34.91	-.14	38.16	-.92	.36
Peer Status	-11.13	-.66	3.01	3.70	.001

R^2=.4114 F=7.92, df=4,34, p<.0004

a = unstandardized regression coefficient

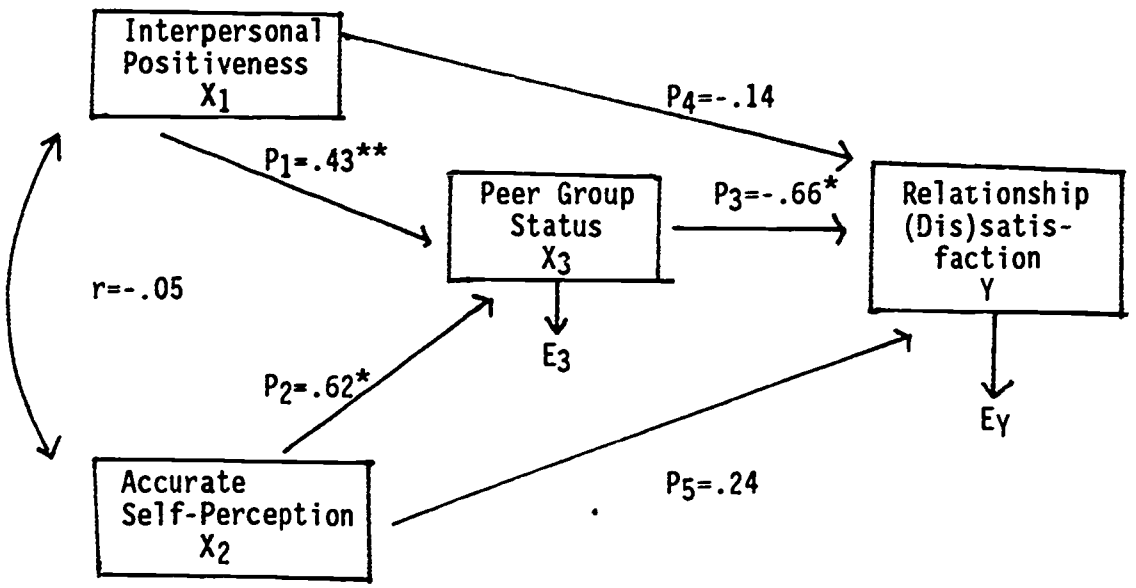
b = standardized regression coefficient (Path Coefficient)

c = standard error of the unstandardized regression coefficient.

Note. Significance tests are two-tailed.

FIGURE 2

A Direct and Indirect Effects Model of Social Competence on Peer Group Status and Relationship (Dis)satisfaction



*p<.001
**p<.01

Note. P = path coefficient = standardized regression weight (β).

popular peers tend to under-estimate social status. Hymel and Franke (1985) have presented similar data. This suggests that it is not simply knowledge of social standing that is important to predicting group status, but what one does with the knowledge. That is, it appears that unpopular children may not have learned an especially important facet of interpersonal positiveness, i.e., a "modest presentation of self" (Goffman, 1959). Interestingly, at a different level of analysis, an alternative explanation is suggested by a recent study by Connell and Ilardi (1987).

In an investigation of self- versus other-evaluations of cognitive competence in terms of self-system variables (self-worth, self-regulatory style, anxiety and coping style), Connell and Ilardi (1987) found that, when level of perceived competence is statistically controlled, overrating is not associated with self-confidence and self-esteem. Rather, overrating is associated with internalized and anxiety-based regulation of achievement behavior. This supports, Connell and Ilardi (1987) argue, the motivational theory of Covington and Beery (1976), which would postulate that ego-defensive mechanisms may be at work in overrating children. That is, overrating of competence may be a function of anxiety, associated with low self-esteem and fear of failure (Covington & Beery, 1976). In other words, positive self-distortion may be a defense mechanism used by low-self-esteem children rather than a self-enhancing mechanism of high-self-esteem children (Connell & Ilardi, 1987). Granted, the subjects in the present investigation rated perceived social status, while the Connell and Ilardi (1987) subjects rated perceived cognitive competence. While not strictly comparable, at least empirically, theoretically this line of reasoning is compelling.

Of course, it is impossible to test in the present study whether unpopular children overrated their social status because they have not

learned skills of modesty, or because they are engaging an ego-defense mechanism. However, given that we also found that unpopular children are less happy with their peer relationships, yet still over-rate their social status, calls for further investigation into the processes of social competence and self-perception and levels of satisfaction with social relationships. It is also possible that both processes elucidated above are at work. That is, while an ego-defense explanation may explain why unhappy, unpopular children would over-rate social status, it does not explain why popular children would tend to under-rate their own social status. In the latter case, it may be sufficient to invoke a social skills explanation, i.e., that these children have learned to be modest. Our inability to adequately account for these processes only underscores the need for further research, both theoretically and empirically.

The implications from this line of research are far-reaching. Recall that poor peer relations are associated with problems later in childhood, adolescence, and early adulthood. Given the potential implications of childhood peer rejection, it becomes imperative to critically examine the processes that facilitate rejection. Thus, while this project has added important information to understanding the role of social competence in childhood peer relationships, the task now is to build upon the questions and processes discussed in this paper and continue to piece together the complex phenomenon of children's peer relationships.

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